

**A Profile of Poverty in Zambia
Based on the 1991 Household Expenditure
and Incomes Survey**

Helen H. Jensen and Brian Lockett

Staff Report 93-SR 61
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EXECUTIVE SUMMARY

Many government programs supported by the Government of Zambia and world donor organizations are designed to alleviate poverty. Accordingly, it is important for assistance program design, implementation, and evaluation to have a clear and accurate concept of this condition and its prevalence. This paper identifies the extent of poverty in Zambia and reports a profile of low-income households that might be used for targeting assistance programs to the poor. The data used to estimate poverty levels come from the Zambian Household Expenditure and Incomes Survey (HEIS) conducted in June 1991.

The distribution of total expenditures, with total expenditures used as a measure of income, is relatively skewed in Zambia. Half of households have one-quarter of total expenditures. The Gini coefficient among individuals equals .44, and equals .46 for households. A poverty line of *mean per capita total household expenditure* shows almost 70 percent of households to be in poverty; more than 30 percent of households fall below one-half the mean per capita expenditure line.

Data from the 1991 HEIS show the rural population to be mostly poor, with a greater level of poverty and greater proportion of poor than in urban areas. Within the rural population, larger households and female-headed households have relatively higher levels of poverty. Of, perhaps, greater concern is the relatively high level of poverty in rural areas among those with education above the elementary level. This suggests that returns to education, especially at the primary level, may be small for those who remain in rural areas. Continued reliance on subsistence or near-subsistence agriculture as a source of income cannot sustain higher levels of income generation.

Assistance programs for the poor in developing countries tend to concentrate on food, given evidence of how consumption levels and their immediate effects have an impact on health and performance. Targeted assistance programs designed to improve living conditions for the poor in Zambia can achieve greatest impact in rural areas, where most of the poor are located. However, since the rural poor generate a relatively large share of their total expenditure through home-produced food, the ability to directly and immediately affect well-being through income or food assistance is limited. For rural areas, strategies aimed at increasing education above the primary level, enhancing off-farm employment opportunities, and improving agricultural development may have more significant impacts on poverty in the long run.

While food budget shares are relatively similar among income deciles in rural and urban populations, the smaller reliance on home-produced food in urban areas, in contrast to rural areas, suggests that food assistance programs are likely to be more effective in improving well being of the urban poor. The survey data indicate that the urban poor live primarily in the Eastern, Western, and Copperbelt provinces, in large households, and in households having older and widowed heads. These groups, especially, would benefit from targeted assistance given the apparent limitations that they face in regard to possibilities for increasing their per capita incomes.

A PROFILE OF POVERTY IN ZAMBIA BASED ON THE 1991 HOUSEHOLD EXPENDITURE AND INCOMES SURVEY

Many government programs supported by the government of Zambia and world donor organizations are designed to alleviate poverty. For effective program design and efficient allocation of program resources, it is important to understand the characteristics of potential target populations. For food programs, in particular, necessary information includes the types of foods consumed, underlying variation in consumption patterns for households, and the identification of effective ways to target food programs. Identified means of targeting food assistance to the poor may involve, for example, easily observed characteristics of the households and underlying consumption patterns themselves.

The 1991 Zambian Household Expenditure and Incomes Survey (HEIS) was undertaken by the Prices and Incomes Commission of the Government of Zambia (GOZ) with support from the U.S. Agency for International Development (USAID), and with cooperation from the Central Statistics Office and the United Nations Development Program (UNDP). The survey provides information that can be used for evaluating measures of poverty and related characteristics of low-income households. One objective of the survey was to identify key poverty groups in order to provide information for more effectively targeting food assistance programs to those most in need.

This paper identifies the extent of poverty in Zambia and reports a profile of low-income households in order to identify characteristics of households that might be used in targeting assistance programs to the poor. An overview of the survey data is followed by a description of alternative poverty line measures and the methods used in this study to evaluate poverty. A descriptive analysis of the characteristics of the poor, an overview of their food consumption patterns, and a summary of the findings on poverty measures and implications for targeting food programs comprise the remainder of the paper.

The Data: Survey Design, Sampling Scheme, and Household Weights

The 1991 HEIS collected information from households on expenditures, transfers, and business expenses. Individual and household level information was collected on demographic variables and incomes. The survey information was collected in June 1991, weekly for four weeks. There were

2,930 households in the original sample; the data used for this report consist of 2,439 households. Households that were deleted did not have complete identifying information, had no identified household head over 13 years old, or failed to report food transactions in each of the four interview periods. This last criterion was used as a screen for complete recording of survey information.

The survey consisted of six parts:

1. **The Household Section** included information on the location of the household and characteristics of each household member (relationship to household head, age, sex, education, marital status, employment status, and occupation).
2. **Household Consumption Expenditures** included the quantity and value of goods and services obtained through market purchase, barter, or consumption of home-produced food, beverages, and tobacco. This section covered food items, clothing, housing, medical care, education, recreation, transportation, communication, furniture, and other goods and services.
3. **Nonconsumption Expenditures** covered household information on direct taxes, gifts outside of the household, savings, mortgage payments, other payments to pension funds, and similar expenditures.
4. **Sources of Income** included individual level information on cash and in-kind income from salaries, wages, agriculture, manufacturing, repairs, marketing, food and catering services, informal sundry services, mining, and other sources. Income also included gifts received, scholarships, and other transfers, as well as other sources of income including rent, interest payments, pensions, and bonuses. Agricultural income included type and quantity of foods produced as well as quantity sold, retained, and consumed.
5. **Operational Expenses for Self-Employment Activities** included information on business expenses incurred from agricultural, manufacturing, repairs, formal and informal marketing, food services, sundry services, other business, and mining operations.
6. **Maize Meal Coupon Section** included information about the household's participation in the coupon program, as well as information on the amount of maize meal obtained through the maize meal coupon program.

Not all information was collected at each of the four visits. Respondents completed the sections on food expenditures and income on each visit; the household information was collected only at the first interview, and the maize meal coupon information at the last. The reporting periods varied by question so that more frequent income and expenditure categories were recorded weekly and less common income and expenditures were recorded for longer periods of time.

A maize coupon program, instituted only in urban areas, was in the process of being phased out by 1991. Since the survey was conducted in June 1991, some residual effects of the coupon program may be evident in observed expenditure patterns. However, observations at the time and reported coupon program participation in the survey indicate that, by June, participation in the program was

relatively small. Only 11 households reported participation in the maize meal coupon program, so this section was not included in the analysis.

A multistage, stratified sampling scheme was used for the survey with the household being the unit of measure. Zambia has nine provinces that are divided into districts. Every province was represented in the sample but the Eastern province was over-sampled in order to provide sufficient data for a separate analysis (not part of this report). Districts were defined as being either rural or urban and were further broken down into Census Supervisory Areas (CSAs) based on those defined for the 1990 Census of Population, Housing, and Agriculture. Ten households were randomly selected from each CSA.

The three survey strata were (1) the Eastern Province (which contained one urban and two rural districts), (2) rural districts, and (3) urban districts distributed among the other eight provinces. Table 1 shows the distribution of districts within strata and number of households sampled. Due to the nonrandom nature of the sampling scheme, weights were developed and assigned to each household in order to represent a national distribution (Loughin, Fuller, Carriquiry 1992). The national distribution, based on the 1990 census, means that the sum of the weights is the total number of households in Zambia. All means and percentages in this report have utilized this weighting system.

Methods of Analysis

Targeting assistance and alleviating poverty effectively require information about the extent and characteristics of the population in poverty. The major objectives of this study are to identify the extent of poverty by using the data from the 1991 HEIS, and to identify the sectors of the population most at risk of poverty. These sectors would be prime candidates for targeted assistance.

Expenditures as a Proxy for Income

Reported income in an expenditures and income survey such as the HEIS is not often a good measure of household income. Total expenditures is a better proxy for household income. Prior experience with expenditure and income data shows that many households are reluctant or unable to report income accurately. Poor households with irregular employment and various income sources may not know their actual incomes. Individuals that rely on the informal marketing sector may be reluctant to report their incomes accurately. Reported expenditure data tend to be more reliable and

less prone to error than income data. For most households, especially in developing countries, there are few household resources available for savings so expenditure data closely approximate income.

For the purposes of this analysis, expenditure includes cash outlays for goods and services as well as consumption of home-produced foods during the reporting period. Income-in-kind, gifts and barter were not included due to the quality of the data. Total expenditure was the sum of all reported expenditures and valued consumption from home-produced foods. All expenditure values were annualized since reporting periods varied for different survey items. The annualization used appropriate period weights; for example, weekly reported values were multiplied by 52.

Rental values for housing were not imputed in the calculation of total expenditures. This may create differences between households who pay and report rent, compared with others. In Zambia, more urban households reported housing costs than did rural residents; hence, the reported total expenditures could be biased downward in rural areas. However, on closer inspection of the data, the bias was determined not to be a major problem. For those rural Zambians that did report housing costs, the average housing share was only about 3 percent.

It is important to note that the HEIS was undertaken during a one-month period, June 1991, and not throughout the year. Therefore, no seasonal variation was covered and June expenditures are assumed representative of annual expenditure patterns. The month of June is after the maize harvest season, a time of relative abundance during the year. Since the survey occurred at this time, the reported expenditure levels (especially for food) may be somewhat higher than if data were collected at other times during the year. Consumption of home produced commodities is an important factor in household expenditure (especially in rural areas), and therefore especially due to the survey being completed after the harvest season, the calculated annual expenditure level may be biased upwards. There is no way to evaluate the extent of this bias with the current data.

Table 2 shows that the mean per capita (annual) expenditure at the national level is K10,302 per year; one-half of that is K5,151 per year. The mean per capita expenditure in rural areas is K7,916 and about one-half the mean, K15,993, in urban areas. Note that the mean total expenditure level for households in urban areas (K91,030) is more than 20 percent above the income support level proposed by the Zambian government in 1991 of K72,000 per *household*; on a per capita basis, this income support level would be K12,652 (72,000 divided by 5.46, the average household size).

Household expenditures show greater variation than do per capita expenditures in the survey. Coefficients of variation ($CV = (\text{std}/\text{mean}) * 100\%$) are 23.27 percent and 8.61 percent, at the national

level. Factors that may account for this difference are an instability in the members of the households and larger numbers of members in income households.

Expenditure Deciles

The distribution of households across income levels provides information on the extent of inequality in the income distribution, and is a useful way of classifying households into income groups. Income (total expenditure) deciles were constructed on a per capita basis by ranking all households in the sample on per capita total expenditures and then assigning ten equal groups based on the number of households represented. The first decile represents the poorest 10 percent of households and the tenth decile the wealthiest (Table 3). Table 4 shows the distribution of households by deciles and urban and rural location.

From Table 3 it is evident that the distribution of per capita total expenditures in Zambia is highly skewed. Half of the households have one-quarter of total expenditures; the lowest two deciles have less than 7 percent of national expenditures. The Gini index, an index of the equality of the distribution of income in the population, equals .4354 evaluated over individuals on a per capita expenditure basis, and .4586 for households on the basis of household expenditure. Under perfect equality the Gini index is zero, and under perfect inequality it is one. For comparison purposes, of a qualitative nature only, estimates of Gini indices from other countries or time periods are useful. Jain (1975) reports estimates from selected studies conducted in the 1970s. The studies at the *household* level report Gini indices for Hong Kong (1971 = .43), Japan (1971 = .29), Malaysia (1970 = .52). Banskota et al. (1986) estimated a Gini index for Jamaica households in 1984 equal to .42. More recently, Kakwani (1990), by using per capita consumption (adjusted for imputed value of owner occupied dwelling, depreciated value of consumer durables and regional price variations), calculated a Gini index over individuals of .43 for Côte d'Ivoire, for 1985; Cutler and Katz (1992) estimated a Gini index on per capita consumption in the United States to be .34 in 1988.

Poverty Datum Line

A meaningful poverty level, or poverty datum line (PDL), provides a criterion for defining members of the population that are living in poverty, and can be used to monitor fluctuations in the incidence and prevalence of poverty. Those in poverty have incomes lower than this reference amount. In practice, the choice of a PDL is a subject of considerable debate. Using an absolute measure, such as a minimum food consumption level or market basket of goods to ensure survival, is

one approach. This requires some agreement about the physical requirements for the selected living standard, and good information on household access to goods and services that meet the basic needs. Since the HEIS was undertaken in a one-month period, it likely does not fully represent the true consumption pattern over the entire year. This makes the application of an absolute poverty level to these data difficult at best. Since the main objective of this report is to profile poverty broadly in Zambia, a relative measure is preferred. A relative poverty line defines poverty compared to the overall living standards of the country.

Other studies in developing countries have shown that absolute poverty lines selected using the basic needs approach tend to fall close to the mean national income (total expenditure) (Ravallion 1992). Thus, for this study, the mean national, per capita total expenditure was used to define the poverty line, and a second poverty line, one-half of the mean per capita expenditure, was used to identify the “very poor.” Note, however, that by using the mean, which is a relative measure, it is impossible to ever achieve no poverty and the incidence of poverty is dependent on the distribution of income (i.e., relative to the mean). Thus, the definition is likely to be of more use in countries such as Zambia with relatively low incomes.

The PDLs were applied on the basis of national per capita means rather than by considering rural and urban populations separately. Note that the rural population accounts for about 70 percent of the total population and therefore weighs down the average. Rural deciles are “bottom heavy” while urban deciles are “top heavy” (Table 4). Nationally, almost 70 percent (68.5 percent) of households fall below the mean per capita expenditure level of K10,302. More than 30 percent (32.0 percent) of households fall below the one-half mean per capita expenditure line of K5,151 (Table 5).

Poverty Measure

Poverty measures were calculated using a relatively general method first proposed by Foster, Greer, and Thorbecke (1984). The poverty measure P_α is calculated as follows:

$$P_\alpha = [\sum((z-y_i)/z)^\alpha]/n$$

where

z is the poverty line;

α is a parameter that determines the type of index to be calculated;

y_i is the income (expenditure) of the i th household or individual whose income (expenditure) is below the poverty line;

n is the number of households or individuals in the sample;

and the summation takes place over those households or individuals whose income (expenditure) is below the poverty line ($i=1, \dots, q$).

Different α values give different indices. A value of 0, for example, yields the proportion of households or individuals with income below the poverty level in a given group. An α value of 2 gives a greater weight to poorer households or individuals by increasing exponentially the summed value of the distance between z and y_i .

This poverty index can be decomposed in order to compare the incidence of poverty among different groups.

Results

The data analysis uses two poverty lines (the mean and one-half mean) and an α criterion level equal to 2; poverty is evaluated for *individuals*. Reported “levels” of poverty in Tables 6 through 22 are for the poverty measure P_α . Higher values indicate greater poverty among all individuals for the designated PDL. The tables also show the distribution of individuals contributing to the total measured poverty, and the proportion of poor in each group (the percentage of individuals with incomes below the PDL).

Distribution of Poverty by Location

As Table 6 shows, the poverty level is relatively high in rural areas regardless of which PDL is used. With the mean PDL, 69 percent of the population in Zambia lives in poverty; the very poor (with income below one-half of the mean) are 32 percent of the population. The rural population of Zambia has the vast majority of the poor, as well as a higher incidence of poverty and a higher level of poverty than urban areas (Table 6). These differences are consistent across provinces as well (Table 7).

Those living in rural households of the Eastern, Luapula, and Northwestern provinces show the highest incidence of poverty and rural households of the Central, Eastern, Luapula, and Southern provinces contribute the most to total poverty (Table 7). For urban areas, the Eastern Province shows the greatest level (depth) of poverty, with the Copperbelt, Southern, and Eastern Provinces contributing most to total poverty.

Household Size

Per capita measures provide the basis for analysis of the poverty criteria in relation to income distribution. How does household size vary by income level? As Table 8 shows, those in households in lower (per capita) deciles generally live in larger households. The average household size of rural households decreases as deciles increase while urban household sizes remain fairly consistent except for the top three deciles. These top deciles have markedly smaller households. Table 9 shows, in greater detail, the distribution of household size among the per capita income deciles: in rural areas, those living in larger households tend to be poorer in per capita terms; throughout Zambia, those with highest per capita total expenditures tend to live in smaller households.

As Table 10 shows, large rural households (those with four or more members) have the highest levels of poverty and contribute most to the percentage of poverty. More than 80 percent of individuals in larger rural households are poor by the mean standard; nearly one-half of individuals are poor in large rural households using the more stringent one-half of mean standard.

Age and Marital Status

Table 11 indicates that, in all of Zambia, there are relatively more children in lower deciles than adults. This is especially true in rural areas. In both locations, the top two deciles show a larger proportion of adults compared with other deciles. Those in households with an older head (55 years and older) have relatively higher poverty levels in both rural and urban areas (Table 12). The differences in proportion of poor in each group by age of household head are more pronounced in urban areas.

Those living in households with a widowed female as the household head show the highest incidence of poverty (Table 13). This is the case both in rural and urban areas. Differences in poverty levels among individuals are less pronounced for those in male-headed households, although single males in urban areas show the lowest levels of poverty.

Education of Household Head

Education is a relatively good predictor of per capita income differences, especially in urban areas and for levels of education above primary level (Table 14). In fact, in rural areas, except for the highest decile group, primary education appears to have little effect on expected income. Additional education for the head, either secondary or higher, is associated with heads in higher per capita deciles.

Those in rural households in which the head has no formal education, or some primary schooling only, contribute the most to total national poverty, with the depth of poverty being greatest for those rural households in which the head has no formal education (Table 15). Even those in households with a head who has received secondary education, but who live in rural areas, have poverty levels above those in urban areas. In rural areas, 65 percent of those in households with a head who has secondary education and 48 percent of those in households whose head has even higher levels of education are in households below the mean per capita expenditure level. Secondary schooling does appear, however, to have an important effect on reducing both the percentage of poor and the depth of poverty, especially in urban areas. Urban households in which the head has some secondary schooling have a lower incidence of poverty than do rural households in which the head has some secondary schooling, probably due to greater employment opportunities in urban areas.

Employment and Sources of Income

Self-employed household heads are more common in rural areas than in urban areas at all income levels (Table 16). Self-employment in rural areas is primarily farming. Urban household heads are more likely to be wage and salaried employees than are rural household heads, with no distinct differences across deciles.

Table 17 shows that the rural self-employed, unemployed, and "not applicable" (including retired or disabled heads) groups have the highest levels of poverty. Rural self-employed make the largest contribution of all groups to total poverty, especially to the "very poor." Nearly 85 percent of the very poor (below one-half of mean per capita expenditures) are in rural self-employed households. Urban households show little difference in poverty between households with employed, self-employed, or unemployed heads.

Information on income and income sources from household surveys such as the HEIS is known to include many errors and problems in reporting. Very limited information on sources of income within households, however, may contribute to some understanding of the resources available to households. Table 18 shows the distribution of households reporting receipt of some income, by type of income. Note, as expected, wage and salary income is reported more often in urban than rural households; also, receipt of wage and salary income is reported for all income groups. Some agriculture income is reported by both rural and urban households. Relatively broad reporting of some agriculture income in the lowest urban percentiles suggests possible problems with the definition

of “urban” areas. Receipt of income in urban areas from the trading and informal sectors is relatively broadly distributed in all but the lowest decile group.

Food Consumption Patterns Across Income Groups

Since food expenditures represent a major share of expenditures for the poor, they are frequently used as indicators of levels of well-being, and food is used as an instrument for transferring assistance to the poor. More detailed analysis of food expenditure patterns in Zambia is in two other reports (CARD 1992 a, b). Some understanding of the role of food in the budget of the poor is important when considering methods of targeting assistance. The analysis of food budget shares, the mean values for shares, are calculated as the mean of observed household shares.

Food budget shares are larger in rural areas than in urban areas, at .82 and .66. Table 19 shows the distribution of mean food budget shares, and indicates that these shares fall at higher deciles. However, even the highest deciles show relatively large average food shares. The composition of the food basket does change, though, as households at higher deciles purchase more meat and less vegetables and cereals. Rural households consume larger shares of cereals and tubers than do urban households while urban households consume more meat, fish, and vegetables.

A large proportion of the food budgets of rural households is home produced (Table 20). For those in the lower two deciles, more than 80 percent of the value of the reported food budget is from home-produced sources (primarily cereals). Again, in urban areas, the lower two deciles show behaviors more like those in rural areas, and have relatively high levels of home-produced foods.

Another way to look at the standard of living for the poor is through the types of foods consumed. Primarily carbohydrate source foods are defined here as bread, wheat flour, roots and tubers, cassava flour, maize products, rice, and sugar. Primarily protein source foods are defined here as fresh and preserved meats and poultry, fresh and dried fish, milk, eggs, beans, and groundnuts. The poorest would be expected to consume relatively more of their food as carbohydrates. Among rural households, the food budget shares for primarily carbohydrate source foods at lower deciles are high; the food budget shares to primarily protein source foods increases as deciles increase (Table 21). Urban households show greater consistency among deciles in food budget shares for both carbohydrate and protein source foods. Rural households have larger food budget shares for carbohydrate source foods than do urban households, which consume more vegetables and protein source foods.

There is a clear difference between rural and urban households in consumption patterns for certain maize products (Table 22). Rural households consume mostly hammer-milled maize while urban households consume breakfast meal and roller meal, although the expenditure shares are still low. In urban areas shares for breakfast meal increase with higher deciles while shares for roller meal remain fairly consistent.

Summary and Conclusions

Data from the 1991 HEIS show the rural population to be mostly poor, with a greater level of poverty and greater proportion of poor than in urban areas. Within the rural population, larger households and female-headed households have relatively higher levels of poverty. Perhaps of greater concern is the relatively high level of poverty in rural areas among those with education above the elementary level. This suggests that returns to education, especially at the primary level, are small for those who remain in rural areas. Continued reliance on agriculture as a source of income may not contribute to higher levels of income generation.

Targeted assistance programs designed to improve living conditions for the poor in Zambia can achieve greatest impact in rural areas, where most of the poor are located. However, since the rural poor generate a relatively large share of their total expenditure through home-produced food, the ability to directly and immediately affect well-being through income or food assistance is limited. For rural areas, strategies aimed at increasing education above the primary level and enhancing off-farm employment opportunities may have a more significant impact on poverty in the long run.

While food budget shares are relatively similar among income deciles in rural and urban deciles, the smaller reliance on home-produced food in urban areas, in contrast to rural areas, suggests that food assistance programs are likely to be more effective in improving well-being of the urban poor. The survey data identify the urban poor to live primarily in the Eastern, Western, and Copperbelt provinces, in large households, and in households having older and widowed heads. These groups, especially, would benefit from targeted assistance and the households could be easily identified.

While the HEIS data have provided a general picture of poverty in Zambia, many details that are crucial to forming good policy are still unknown. In addition to the information gathered in this survey, other factors need to be included. The greater proportion of the poor and the greater depth of poverty exist in rural areas. Data collected over a period of a year would more accurately represent the expenditure and income patterns of rural households, as well as the seasonal price and consumption fluctuations in the post-maize harvest period. Data collected on household land holdings

under agricultural production and also on livestock holdings would help to distinguish access to productive resources. Household stores of grain and other storable foods would improve the estimates of food availability throughout the year. Rental values, imputed for houses, outbuildings, and other durable goods, would permit better measurement of the total household budget.

For urban households, in particular, there is little information on transfers available to households or the value of subsidized public services. This information is not easy to obtain at the household level. Even the coupon program information, when asked, was sparse. However, the omission of these resources implies that the value of transfers and subsidized services, which may be available to some more than others, is not included in measured income. Additional information on access and use of subsidized services and transfers would prove invaluable for a more in-depth analysis of the characteristics and determinants of poverty in Zambia, allow more careful monitoring of changes in levels of well-being over time, and contribute to the design and implementation of more efficient assistance programs.

Table 1. Sampling frame for the 1991 Zambian Household Expenditure and Incomes Survey

Strata	Province	District	Number of Households Sampled	Number of Weighted Households
Eastern	Eastern	Chadiza	93	25,864
		Chipata	349	88,258
		Petauke	324	89,041
Rural	Central	Kabwe Rural	157	110,645
		Mkushi	73	52,872
	Luapula	Mwense	71	43,514
		Samfya	110	66,797
	Northern	Chilubi	31	18,558
		Mporokoso	57	35,113
	Northwestern	Zambezi	55	65,717
	Southern	Choma	111	121,548
		Kalomo	121	145,242
	Western	Mongu	104	115,120
Urban	Luapula	Mansa	184	109,625
	Southern	Livingston	53	40,812
	Copperbelt	Kitwe	212	144,542
	Lusaka	Lusaka Urban	334	157,655
Total			2,439	1,430,923

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 2. Average annual household and per capita expenditure by expenditure classification

	Expenditure Group		Total Expenditure	Average Household Size
	Total Food	Total Nonfood		
	(kwacha)			
Household Expenditure				
Rural	31,883	10,687	42,540	5.37
Urban	55,648	35,381	91,030	5.69
National	38,623	17,669	56,293	5.46
Per Capita Expenditure				
Rural	5,933	1,983	7,916	
Urban	9,777	6,216	15,993	
National	7,069	3,234	10,302	

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 3. Percentage contribution to total national expenditure by per capita expenditure decile

Decile	Percent of National Expenditures	Cumulative Percentage
1 (lowest)	2.66	2.66
2	4.06	6.72
3	5.03	11.75
4	6.46	18.21
5	7.21	25.42
6	8.86	34.28
7	10.39	44.67
8	13.22	57.89
9	15.99	73.88
10 (highest)	26.11	99.99

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 4. Distribution of households within per capita decile by rural and urban location

Decile	Rural	Urban
	(percent)	
1 (lowest)	13.68	0.61
2	12.82	2.94
3	12.62	3.24
4	11.51	6.31
5	11.02	7.40
6	9.92	10.18
7	9.62	10.91
8	7.84	15.33
9	6.84	18.12
10 (highest)	4.12	24.97
Total	100.00	100.00
1 (lowest)	98.25	1.75
2	91.68	8.32
3	90.77	9.23
4	82.17	17.83
5	79.00	21.00
6	71.10	28.90
7	69.03	30.97
8	56.38	43.62
9	48.82	51.18
10 (highest)	29.43	70.57

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 5. Mean annual per capita expenditures in per capita decile by rural and urban location

Decile	Rural	Urban	All Zambia
		(kwacha)	
1 (lowest)	2,337.50	2,502.32	2,340.38
2	3,757.81	3,895.26	3,772.00
3	4,763.05	4,651.65	4,751.55
4	5,917.26	6,022.56	5,939.23
5	7,173.27	7,240.25	7,191.95
6	8,788.88	8,773.35	8,783.07
7	10,712.25	11,012.33	10,834.94
8	14,152.51	14,052.10	14,103.14
9	18,308.57	19,546.48	18,968.02
10 (highest)	48,982.53	42,140.10	43,905.07

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 6. Rural, urban, and national poverty levels

	Level of Poverty	Contribution to Total Poverty	Average per Capita Expenditure by Poor	Proportion of Poor in Each Group
Mean^a		(percent)	(kwacha)	(percent)
Rural	0.2306	90.72	5221.26	0.79
Urban	0.0563	9.28	7130.66	0.43
All Zambia	0.1791	100.00	5575.48	0.69
One-half Mean^b				
Rural	0.0629	96.93	3468.59	0.42
Urban	0.0048	3.07	4084.98	0.08
All Zambia	0.0457	100.00	3514.32	0.32

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

^a Poverty datum line is defined as the mean annual national per capita expenditure.

^b Poverty datum line is defined as one-half of the mean annual national per capita expenditure.

Table 7. Poverty levels by province

Location		Level of Poverty	Contribution to Total Poverty	Average per Capita Expenditure by Poor	Proportion of Poor in Each Group
			(percent)	(kwacha)	(percent)
Mean^a					
Rural	Central	0.1664	13.39	5788.34	0.70
	Eastern	0.3285	22.10	4467.59	0.89
	Luapula	0.2779	18.14	4919.25	0.87
	Northern	0.2025	3.31	5602.45	0.80
	Northwestern	0.2835	6.37	4906.21	0.88
	Southern	0.2058	21.53	5397.95	0.76
	Western	0.1592	5.89	5870.42	0.72
Urban	Copperbelt	0.0696	4.52	7216.11	0.54
	Eastern	0.1219	0.36	6323.14	0.68
	Luapula	0.0364	0.43	7396.54	0.32
	Lusaka	0.0401	2.34	7046.1	0.30
	Northern	0.0177	0.03	7754.76	0.24
	Southern	0.0695	1.41	6787.29	0.46
	Western	0.0398	0.19	7852.73	0.60
One-half Mean^b					
Rural	Central	0.0306	9.64	3756.22	0.30
	Eastern	0.1225	32.26	3061.54	0.58
	Luapula	0.0864	22.10	3383.84	0.52
	Northern	0.0445	2.85	3654.05	0.38
	Northwestern	0.0800	7.04	3469.73	0.56
	Southern	0.0482	19.75	3611.84	0.38
	Western	0.0228	3.30	3937.23	0.29
Urban	Copperbelt	0.0058	1.48	4012.56	0.10
	Eastern	0.0090	0.10	4342.46	0.21
	Luapula	0.0050	0.23	3872.95	0.05
	Lusaka	0.0030	0.69	4145.47	0.06
	Southern	0.0072	0.57	4197.49	0.11

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

^a Poverty datum line is defined as the mean annual national per capita expenditure.

^b Poverty datum line is defined as one-half of the mean annual national per capita expenditure.

Table 8. Mean household size in per capita decile by urban and rural location

Decile	Rural	Urban	All Zambia
1 (lowest)	6.42	6.43	6.42
2	5.92	7.51	6.05
3	5.91	6.69	5.99
4	5.88	7.14	6.10
5	5.16	7.50	5.65
6	5.00	7.36	5.68
7	4.63	7.13	5.40
8	4.77	5.97	5.29
9	4.52	4.92	4.73
10 (highest)	2.92	3.51	3.34

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 9. Distribution of households by size and per capita decile by rural and urban location

Decile	Household Size									
	1	2	3	4	5	6	7	8	9	>=10
(percent)										
Rural										
1 (low)	0.73	3.71	5.84	12.78	13.88	20.05	18.84	21.99	32.38	15.11
2	1.47	8.99	9.02	14.50	14.34	16.52	16.43	14.12	10.46	15.98
3	2.92	6.13	8.96	14.18	15.74	14.77	19.92	10.33	6.95	17.02
4	1.83	10.74	12.18	10.27	15.09	14.44	6.88	13.54	16.94	13.00
5	9.26	8.22	15.75	13.86	11.54	9.44	8.44	9.43	3.73	13.06
6	7.71	9.47	14.00	8.74	14.15	5.26	10.69	9.73	10.02	5.52
7	16.88	13.67	13.09	7.93	4.14	11.59	8.58	9.00	13.42	3.36
8	14.23	12.95	8.66	7.75	6.27	4.67	6.38	7.94	2.37	7.59
9	22.61	17.21	7.47	6.33	3.01	2.22	3.61	2.64	3.73	7.10
10 (high)	22.37	8.91	5.04	3.65	1.84	1.04	0.25	1.28	0.00	2.26
Urban										
1 (low)	0.00	0.00	1.43	0.00	0.00	1.28	0.40	0.91	2.50	0.00
2	0.00	0.00	0.00	1.06	0.31	4.82	9.55	3.73	5.01	4.57
3	0.00	4.52	0.00	1.56	4.04	4.68	3.64	6.04	0.00	5.11
4	0.00	1.58	3.15	3.41	8.49	6.77	7.21	6.23	9.37	14.85
5	0.00	0.00	1.82	6.67	6.37	6.63	13.10	12.41	11.39	13.55
6	0.00	0.00	9.46	8.60	7.53	6.07	10.88	15.89	21.74	21.94
7	0.00	4.25	6.15	10.13	10.06	10.61	13.50	14.83	17.58	19.56
8	0.00	12.55	10.79	16.93	18.11	23.04	21.08	19.47	13.89	8.20
9	8.99	25.57	28.75	26.23	21.71	21.44	11.39	10.24	14.81	6.77
10 (high)	91.01	51.53	38.45	25.42	23.38	14.66	9.25	10.24	3.71	5.44
All Zambia										
1 (low)	0.52	2.66	4.80	9.55	10.47	14.27	14.33	15.17	19.53	9.57
2	1.05	6.45	6.90	11.10	10.89	12.92	14.75	10.76	8.11	11.81
3	2.09	5.68	6.85	10.99	12.87	11.66	15.94	8.94	3.96	12.66
4	1.31	8.15	10.05	8.54	13.47	12.08	6.96	11.18	13.68	13.68
5	6.63	5.89	12.48	12.04	10.27	8.58	9.57	10.40	7.03	13.24
6	5.52	6.79	12.93	8.71	12.53	5.51	10.74	11.72	15.06	11.54
7	12.09	11.01	11.45	8.48	5.59	11.29	9.78	10.88	15.21	9.29
8	10.19	12.84	9.16	10.07	9.18	10.33	9.97	11.67	7.33	7.81
9	18.74	19.57	12.48	11.36	7.60	8.13	5.51	5.10	8.50	6.98
10 (high)	41.85	20.96	12.90	9.15	7.13	5.23	2.45	4.18	1.60	3.43

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 10. Poverty levels by size of household and rural and urban location

Location	Size of Household	Level of Poverty	Contribution to Total Poverty	Average per Capita Expenditure by Poor	Proportion of Poor in Each Group
Mean^a			(percent)	(kwacha)	(percent)
Rural	1	0.0306	0.15	7411.52	0.27
	2	0.1056	1.33	6306.59	0.53
	3	0.1329	3.88	6367.29	0.66
	4	0.2120	8.50	5334.99	0.77
	5	0.2326	12.11	5451.61	0.87
	6	0.2627	13.76	4956.39	0.84
	7	0.2625	15.83	5033.95	0.84
	8	0.2596	14.26	4874.84	0.80
	9	0.2802	5.98	4875.31	0.84
	≥ 10	0.2417	12.81	5116.78	0.81
Urban	2	0.0143	0.07	5625.94	0.06
	3	0.0172	0.15	7847.18	0.17
	4	0.0223	0.30	7458.84	0.22
	5	0.0355	0.60	7167.08	0.29
	6	0.0577	1.34	6405.41	0.32
	7	0.0767	1.49	6446.79	0.45
	8	0.0678	1.78	7287.69	0.53
	9	0.0639	1.03	7437.29	0.55
	≥ 10	0.0763	2.34	7337.65	0.68
	One-half Mean^b				
Rural	1	0.0026	0.05	4111.98	0.04
	2	0.0178	0.88	3800.94	0.18
	3	0.0223	2.55	3801.98	0.22
	4	0.0549	8.46	3517.89	0.38
	5	0.0582	11.87	3565.19	0.42
	6	0.0731	15.00	3518.20	0.51
	7	0.0762	18.00	3533.28	0.52
	8	0.0806	17.34	3219.59	0.46
	9	0.0900	7.52	3112.16	0.49
	≥ 10	0.0651	13.51	3473.83	0.44
Urban	2	0.0002	0.00	4699.50	0.02
	3	0.0052	0.18	2045.33	0.01
	4	0.0007	0.04	4415.30	0.03
	5	0.0007	0.05	4663.99	0.04
	6	0.0067	0.61	3939.38	0.09
	7	0.0061	0.47	4170.63	0.13
	8	0.0076	0.79	3929.36	0.11
	9	0.0089	0.56	3519.24	0.08
	≥ 10	0.0030	0.36	4332.96	0.10

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

^a Poverty datum line is defined as the mean annual national per capita expenditure.

^b Poverty datum line is defined as one-half of the mean annual national per capita expenditure.

Table 11. Mean percentage of members per household by per capita decile, age group, and location

Decile	< 5 Years	6-12 Years	13-17 Years	All Children	18-54 Years	55+ Years	All Adults
Rural							
	(percent)						
1 (lowest)	17	27	14	58	37	5	42
2	17	23	12	52	41	8	48
3	16	23	13	53	41	7	47
4	15	22	13	50	44	6	50
5	13	19	11	43	46	10	57
6	14	19	13	46	49	5	54
7	13	16	11	40	52	9	60
8	13	14	12	39	51	10	61
9	11	12	8	30	62	8	70
10 (highest)	8	7	4	19	76	5	81
Urban							
1 (lowest)	19	24	7	50	34	16	50
2	12	25	16	53	45	2	47
3	19	22	11	52	40	8	48
4	13	24	19	56	42	2	44
5	19	25	15	60	39	1	40
6	15	22	14	51	48	1	49
7	15	22	16	53	45	2	47
8	17	20	13	50	48	2	50
9	12	16	10	38	60	2	62
10 (highest)	8	10	9	28	70	1	72
All Zambia							
1 (lowest)	17	27	14	58	37	5	42
2	16	23	12	52	41	7	48
3	17	23	13	53	41	7	47
4	15	23	14	51	44	5	49
5	14	21	12	47	45	8	53
6	14	20	13	47	49	4	53
7	13	18	13	44	50	7	56
8	15	17	12	44	50	7	56
9	11	14	9	34	61	5	66
10 (highest)	8	9	8	25	72	2	75

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 12. Poverty levels by age of household head and location

Location	Age of Household Head	Level of Poverty	Contribution to Total Poverty (percent)	Average per Capita Expenditure by Poor (kwacha)	Proportion of Poor in Each Group (percent)
Mean^a					
Rural	18-54 years	0.2276	73.98	5281.28	0.79
	55+ years	0.2449	16.74	4931.98	0.78
Urban	18-54 years	0.0520	8.12	7208.74	0.42
	55+ years	0.1328	1.17	6262.51	0.67
One-half Mean^b					
Rural	18-54 years	0.0617	78.53	3459.93	0.41
	55+ years	0.0683	18.40	3504.49	0.47
Urban	18-54 years	0.0042	2.60	4043.03	0.07
	55+ years	0.0137	0.47	4262.76	0.29

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

^a Poverty datum line is defined as the mean annual national per capita expenditure.

^b Poverty datum line is defined as one-half of the mean annual national per capita expenditure.

Table 13. Poverty levels by location, gender, and marital status of household head

Location	Gender	Marital Status	Level of Poverty	Contribution to Total Poverty	Average per Capita Expenditure by Poor	Proportion of Poor in Each Group
				(percent)	(kwacha)	(percent)
Mean^a						
Rural	Male	Single	0.2141	1.99	5007.89	0.68
		Married	0.2247	68.28	5286.93	0.79
		Widowed	0.1698	0.31	6433.18	0.93
		Divorced	0.1659	0.95	6082.07	0.86
	Female	Single	0.2416	1.74	4285.63	0.66
		Married	0.2314	4.35	5302.33	0.77
		Widowed	0.3116	6.20	4509.52	0.88
		Divorced	0.2585	6.90	4999.38	0.84
Urban	Male	Single	0.0019	0.01	7780.97	0.28
		Married	0.0623	8.33	7099.22	0.46
		Widowed	0.0796	0.14	6702.54	0.57
		Divorced	0.0494	0.11	6800.47	0.35
	Female	Single	0.0289	0.16	7318.66	0.26
		Married	0.0188	0.09	8235.38	0.34
		Widowed	0.0515	0.34	7044.91	0.43
		Divorced	0.0185	0.12	7649.42	0.24
One-half Mean^b						
Rural	Male	Single	0.0627	2.29	3428.12	0.38
		Married	0.0605	71.97	3469.54	0.40
		Widowed	0.0203	0.14	4279.37	0.39
		Divorced	0.0173	0.39	4148.97	0.29
	Female	Single	0.0655	1.85	3684.03	0.54
		Married	0.0785	5.78	3160.5	0.42
		Widowed	0.0989	7.70	3370.56	0.60
		Divorced	0.0652	6.81	3548.19	0.52
Urban	Male	Married	0.0057	2.99	4067.08	0.09
		Widowed	0.0007	0.00	4839.71	0.19
	Female	Single	0.0021	0.04	3170.57	0.01
		Widowed	0.0010	0.03	4278.89	0.03

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

^a Poverty datum line is defined as the mean annual national per capita expenditure.

^b Poverty datum line is defined as one-half of the mean annual national per capita expenditure.

Table 14. Distribution of households in per capita decile by education level of head and location

Decile	None	Primary	Secondary	Higher	N/A
	(percent)				
Rural					
1 (lowest)	33.29	59.47	6.33	0.00	0.91
2	35.21	52.65	9.21	0.20	2.73
3	24.58	66.77	6.61	1.60	0.44
4	20.22	64.35	10.75	3.67	1.02
5	27.36	55.16	14.39	2.14	0.94
6	20.89	59.60	15.53	3.21	0.77
7	19.95	49.10	23.88	4.12	2.96
8	17.48	57.15	21.32	2.27	1.77
9	15.51	52.74	21.91	9.84	0.00
10 (highest)	18.14	30.08	37.78	13.41	0.59
Urban					
1 (lowest)	40.79	59.21	0.00	0.00	0.00
2	11.29	62.76	17.79	8.16	0.00
3	15.08	61.69	23.23	0.00	0.00
4	15.70	38.98	40.55	2.98	1.79
5	2.88	47.21	45.79	2.79	1.33
6	5.78	50.73	36.61	4.71	2.17
7	6.65	37.34	50.94	5.07	0.00
8	6.09	40.80	37.93	14.49	0.70
9	5.58	26.39	48.41	19.61	0.00
10 (highest)	2.33	23.43	47.48	26.76	0.00
All Zambia					
1 (lowest)	33.42	59.47	6.22	0.00	0.90
2	33.22	53.49	9.93	0.86	2.50
3	23.70	66.30	8.14	1.45	0.40
4	19.41	59.83	16.06	3.54	1.16
5	22.22	53.49	20.98	2.28	1.02
6	16.52	57.04	21.62	3.64	1.17
7	15.83	45.46	32.26	4.41	2.04
8	12.51	50.02	28.57	7.60	1.31
9	10.43	39.25	35.47	14.84	0.00
10 (highest)	6.98	25.39	44.63	22.83	0.17

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 15. Poverty levels by education of household head and location

Location	Education Level	Level of Poverty	Contribution to Total Poverty (percent)	Average per Capita Expenditure by Poor (kwacha)	Proportion of Poor in Each Group (percent)
Mean^a					
Rural	None	0.2926	25.78	4694.24	0.86
	Primary	0.2392	54.93	5194.16	0.82
	Secondary	0.1385	8.27	6187.92	0.65
	Higher	0.0700	0.92	6724.15	0.48
	Not applicable	0.2895	0.82	4504.25	0.83
Urban	None	0.1087	1.09	6376.35	0.58
	Primary	0.0815	4.88	6937.37	0.56
	Secondary	0.0399	2.84	7419.1	0.38
	Higher	0.0185	0.42	7686.56	0.17
	Not applicable	0.0432	0.05	8249.92	0.80
One-half Mean^b					
Rural	None	0.0880	30.37	3399.12	0.57
	Primary	0.0645	57.97	3484.29	0.43
	Secondary	0.0333	7.79	3538.06	0.23
	Higher	0.0010	0.05	4623.61	0.06
	Not applicable	0.0681	0.76	3542.19	0.60
Urban	None	0.0158	0.62	3762.41	0.15
	Primary	0.0083	1.94	4083.48	0.14
	Secondary	0.0012	0.34	4314.76	0.04
	Higher	0.0019	0.17	3926.06	0.03

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

^a Poverty datum line is defined as the mean annual national per capita expenditure.

^b Poverty datum line is defined as one-half of the mean annual national per capita expenditure.

Table 16. Distribution of households in per capita decile by employment status of head and location

Decile	Not Applicable	Self-Employed	Employee	Unemployed
(percent)				
Rural				
1 (lowest)	4.11	87.00	6.09	2.80
2	3.85	85.54	4.75	5.86
3	1.81	90.23	5.15	2.81
4	0.99	86.42	10.36	2.22
5	2.09	83.02	8.80	6.08
6	0.00	79.22	19.46	1.32
7	2.63	70.68	21.44	5.25
8	0.00	76.75	20.90	2.34
9	0.78	67.94	30.21	1.07
10 (highest)	2.73	58.58	38.68	0.00
Urban				
1 (lowest)	0.00	24.03	75.97	0.00
2	0.00	14.91	79.25	5.84
3	0.00	25.90	71.41	2.69
4	2.36	22.37	67.43	7.84
5	0.00	31.85	65.47	2.67
6	0.00	31.28	62.62	6.10
7	4.53	12.26	78.14	5.07
8	2.13	30.06	66.97	0.84
9	2.01	21.50	71.24	5.25
10 (highest)	1.36	19.45	75.25	3.94
All Zambia				
1 (lowest)	4.04	85.9	7.31	2.75
2	3.53	79.66	10.94	5.86
3	1.64	84.3	11.27	2.80
4	1.24	75.00	20.53	3.23
5	1.65	72.27	20.70	5.37
6	0.00	65.37	31.93	2.70
7	3.22	52.58	39.00	5.19
8	0.93	56.39	41.00	1.69
9	1.41	44.17	51.21	3.21
10 (highest)	1.76	30.97	64.48	2.78

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 17. Poverty levels by employment status of household head and location

Region	Status of Employment	Level of Poverty	Contribution to Total Poverty (percent)	Average per Capita Expenditure by Poor (kwacha)	Proportion of Poor in Each Group (percent)
Mean^a					
Rural	Self-employed	0.2461	78.82	5096.8	0.82
	Employee	0.1147	6.23	6521.62	0.60
	Unemployed	0.2837	3.26	4657.07	0.85
	Not applicable	0.3321	2.41	4565.71	0.94
Urban	Self-employed	0.0559	2.17	7241.82	0.48
	Employee	0.0568	6.64	7082.67	0.41
	Unemployed	0.0574	0.41	7310.95	0.49
	Not applicable	0.0305	0.07	6238.20	0.20
One-half Mean^b					
Rural	Self-employed	0.0677	84.98	3475.09	0.46
	Employee	0.0281	5.99	3362.82	0.16
	Unemployed	0.0721	3.25	3582.40	0.60
	Not applicable	0.0950	2.72	3301.95	0.65
Urban	Self-employed	0.0029	0.44	4397.71	0.08
	Employee	0.0056	2.57	3963.32	0.08
	Unemployed	0.0023	0.06	4414.04	0.08

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

^a Poverty datum line is defined as the mean annual national per capita expenditure.

^b Poverty datum line is defined as one-half of the mean annual national per capita expenditure.

Table 18. Distribution of households in per capita decile by reported income source and location

Decile	Wages and Salaries			Agriculture			Manufacturing		
	Rural	Urban	All Zambia	Rural	Urban	All Zambia	Rural	Urban	All Zambia
	(percent)								
1 (lowest)	8.67	75.97	9.85	41.12	49.18	41.26	1.98	0.00	1.95
2	8.97	64.75	13.61	54.25	59.48	54.69	2.42	0.00	2.22
3	6.13	65.70	11.63	65.99	26.06	62.30	3.63	9.19	4.15
4	15.13	58.51	22.87	59.03	38.42	55.36	2.90	4.90	3.26
5	12.20	64.09	23.09	62.44	35.97	56.88	4.52	10.03	5.68
6	20.76	58.68	31.72	58.71	36.99	52.43	3.93	6.43	4.65
7	20.72	73.61	37.10	60.73	25.93	49.95	5.17	0.94	3.86
8	23.89	63.22	41.04	55.79	21.85	40.98	5.16	6.08	5.56
9	29.47	62.58	46.55	55.45	18.46	36.52	5.63	5.52	5.57
10 (highest)	45.44	68.62	61.80	44.59	10.14	20.28	2.50	4.86	4.17

	Informal Sector			Food Service			Sundry Services		
	Rural	Urban	All Zambia	Rural	Urban	All Zambia	Rural	Urban	All Zambia
	(percent)								
1	10.47	0.00	10.29	31.05	0.00	30.51	1.82	0.00	1.79
2	12.35	13.78	12.47	29.72	3.21	27.51	2.34	0.00	2.14
3	7.79	26.98	9.56	23.55	8.83	22.19	1.88	0.00	1.71
4	11.96	20.95	13.56	21.39	12.74	19.85	3.13	0.52	2.67
5	10.46	39.74	16.61	23.41	14.24	21.49	1.34	3.49	1.79
6	13.57	43.32	22.17	21.96	5.84	17.31	0.25	3.15	1.09
7	16.69	22.87	18.60	22.79	10.48	18.98	1.27	7.63	3.24
8	8.65	30.65	18.24	21.30	14.50	18.33	1.48	2.10	1.75
9	11.19	21.05	16.24	23.08	14.44	18.66	2.04	2.08	2.06
10	12.03	18.12	16.33	6.45	11.01	9.67	2.15	3.33	2.98

	Trading			Other Sources		
	Rural	Urban	All Zambia	Rural	Urban	All Zambia
	(percent)					
1	0.00	0.00	0.00	3.85	0.00	3.79
2	1.65	8.14	2.19	2.77	15.83	3.85
3	1.37	4.08	1.62	2.74	2.90	2.76
4	1.09	1.82	1.22	11.52	12.81	11.75
5	2.06	7.40	3.18	7.69	7.44	7.64
6	0.00	6.15	1.78	11.18	19.73	13.65
7	0.00	4.87	1.51	19.99	20.46	20.13
8	0.68	3.33	1.84	11.70	25.01	17.50
9	1.86	4.43	3.17	16.20	24.88	20.64
10	11.18	7.26	8.41	16.63	27.05	23.98

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 19. Mean food budget share and mean annual food expenditure by per capita decile and location

Decile	Rural		Urban		All of Zambia	
	Mean Food Budget Share	Mean Food Expenditure	Mean Food Budget Share	Mean Food Expenditure	Mean Food Budget Share	Mean Food Expenditure
		(kwacha)		(kwacha)		(kwacha)
1 (lowest)	0.90	13,426.66	0.85	13,144.23	0.90	13,421.72
2	0.88	19,245.35	0.79	22,823.59	0.87	19,542.96
3	0.85	23,569.28	0.80	24,607.94	0.85	23,665.16
4	0.85	28,707.18	0.70	30,153.10	0.82	28,964.96
5	0.84	30,149.82	0.71	38,116.62	0.81	31,822.67
6	0.81	34,230.38	0.72	45,931.86	0.78	37,611.77
7	0.77	36,330.85	0.66	50,225.01	0.74	40,634.40
8	0.76	49,218.91	0.66	54,452.34	0.72	51,501.51
9	0.71	53,367.45	0.65	59,734.10	0.68	56,625.83
10 (highest)	0.66	86,685.27	0.60	80,323.21	0.62	82,195.82

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 20. Mean shares of the total food budget from home produced foods by per capita decile and location

Decile	Rural	Urban	All Zambia
1 (lowest)	0.84	0.57	0.84
2	0.80	0.36	0.78
3	0.79	0.14	0.75
4	0.73	0.11	0.66
5	0.77	0.15	0.69
6	0.67	0.20	0.59
7	0.65	0.10	0.56
8	0.57	0.11	0.46
9	0.57	0.09	0.43
10 (highest)	0.47	0.11	0.31

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 21. Mean food shares for primarily carbohydrate and protein sources by per capita decile

Decile	Rural	Urban	All Zambia
Carbohydrate Source Foods			
1 (lowest)	0.49	0.25	0.48
2	0.45	0.19	0.42
3	0.43	0.20	0.40
4	0.45	0.16	0.40
5	0.44	0.20	0.39
6	0.41	0.22	0.36
7	0.39	0.19	0.32
8	0.38	0.21	0.31
9	0.35	0.21	0.28
10 (highest)	0.29	0.20	0.23
Protein Source Food			
1 (lowest)	0.23	0.25	0.23
2	0.24	0.43	0.26
3	0.25	0.48	0.27
4	0.26	0.42	0.29
5	0.24	0.41	0.28
6	0.28	0.41	0.32
7	0.28	0.41	0.32
8	0.29	0.39	0.34
9	0.30	0.41	0.36
10 (highest)	0.31	0.40	0.37

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

Table 22. Mean food budget shares for the most common maize products by per capita decile

Decile	Breakfast Meal			Hammer-milled Maize Meal		
	Rural	Urban	All Zambia	Rural	Urban	All Zambia
1 (lowest)	0.01	0.03	0.01	0.24	0.01	0.23
2	0.00	0.02	0.00	0.19	0.00	0.17
3	0.01	0.04	0.01	0.17	0.03	0.16
4	0.00	0.03	0.01	0.16	0.01	0.13
5	0.00	0.06	0.02	0.14	0.01	0.11
6	0.00	0.05	0.02	0.13	0.00	0.10
7	0.01	0.04	0.02	0.12	0.00	0.08
8	0.01	0.05	0.03	0.10	0.00	0.06
9	0.02	0.05	0.03	0.10	0.00	0.05
10 (highest)	0.03	0.04	0.04	0.07	0.00	0.02

Decile	Roller Meal			Whole Maize Grain		
	Rural	Urban	All Zambia	Rural	Urban	All Zambia
1 (lowest)	0.03	0.10	0.03	0.02	0.00	0.02
2	0.03	0.04	0.03	0.03	0.01	0.03
3	0.03	0.04	0.03	0.02	0.00	0.02
4	0.02	0.03	0.02	0.02	0.00	0.02
5	0.03	0.02	0.03	0.03	0.00	0.02
6	0.03	0.01	0.02	0.01	0.00	0.01
7	0.04	0.01	0.03	0.02	0.00	0.02
8	0.04	0.01	0.03	0.02	0.00	0.01
9	0.04	0.01	0.02	0.02	0.00	0.01
10 (highest)	0.04	0.01	0.02	0.01	0.00	0.00

SOURCE: 1991 Zambian Household Expenditure and Incomes Survey.

REFERENCES

- Banskota, Kamal, S.R. Johnson, and Gary Stampley. 1986. Income Distribution in Jamaica, 1984. Memorandum #3 prepared under OICD/USDA. University of Missouri-Columbia (UMC) Cooperative Agreement #58-319R-4-073.
- Center for Agricultural and Rural Development, Iowa State University. 1992a. Expenditure Patterns of Zambian Households: Evidence from the 1991 Zambian Household Expenditure and Incomes Survey, unpublished report (April).
- _____. 1992b. Food Consumption with Special Attention to Maize Meal: June 1991, Zambian Household Expenditure and Incomes Survey, unpublished report (November).
- Cutler, David M. and Lawrence F. Katz. 1992. Rising Inequality? Changes in the Distribution of Income and Consumption in the 1980's. *American Economic Review* 82(2):546-51.
- Foster J., J. Greer, and E. Thorbeck. 1984. Notes and Comments: A Class of Decomposable Poverty Measures. *Econometrica* 52(3):761-66.
- Jain, S. 1975. *Size Distribution of Income: A Compilation of Data*. Washington, D.C.: The World Bank.
- Kakwani, Nanak. 1990. Large Sample Distribution of Several Inequality Measures with Application to Côte d'Ivoire. World Bank Living Standards Measurement Study Working Paper No. 61. Washington, D.C.: The World Bank.
- Loughin M.M., W.A. Fuller, and A.L. Carriquiry. 1992. Regression Weighting for the Household Expenditures and Incomes Survey: Zambia 1991. Report prepared for the United States Agency for International Development (USAID).
- Ravallion M. 1992. Poverty Comparisons: A Guide to Concepts and Methods. LSMS Working Paper Number 88. Washington, D.C.: The World Bank.